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Surviving CIO Regime Change

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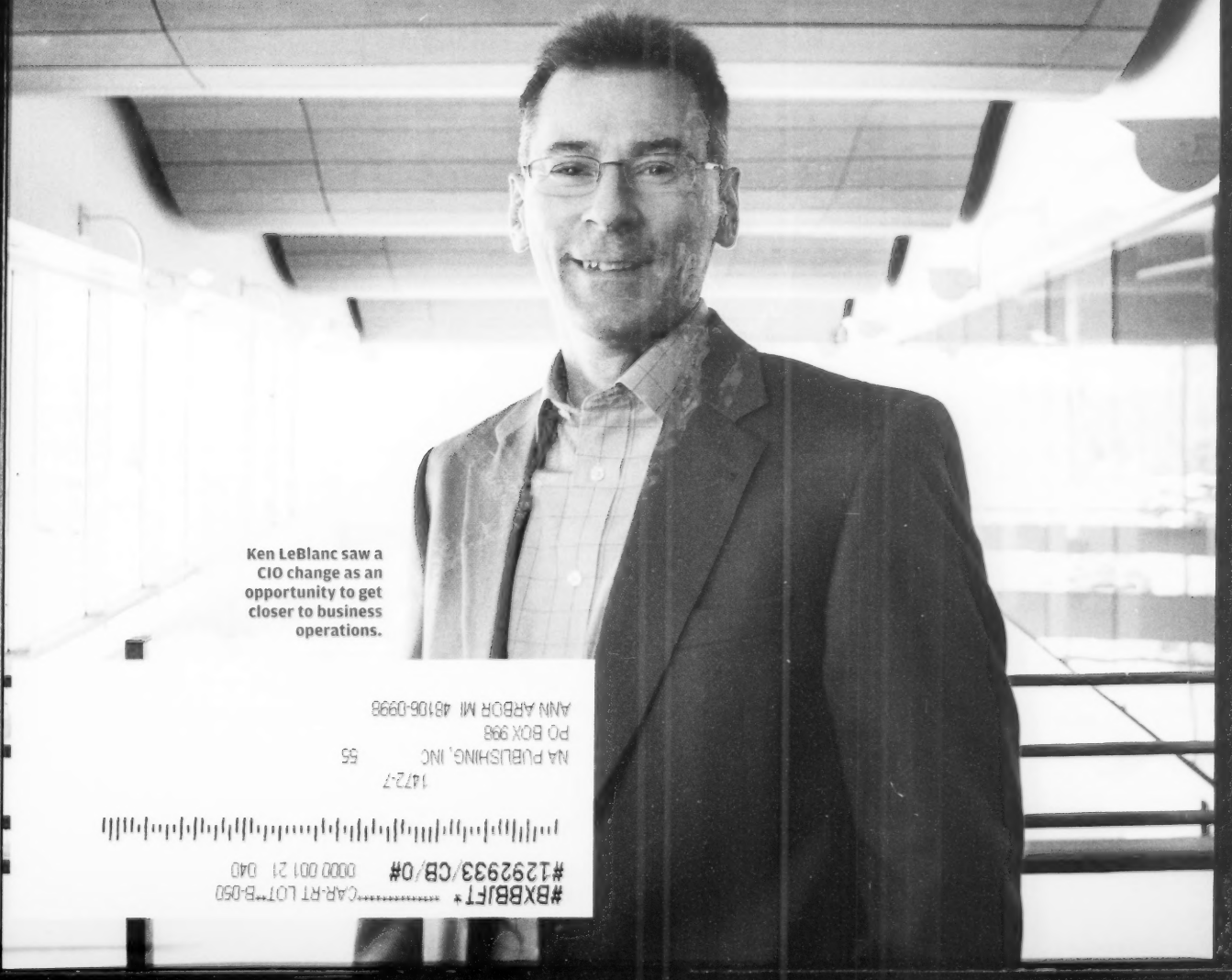

Ken LeBlanc saw a CIO change as an opportunity to get closer to business operations.

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New Trends
Great Ideas

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SMART BUILDINGS

The Light Bulb Becomes an IT Appliance

WHEN ANALYST Sam Jaffe began researching smart buildings, he figured his report would be about using IT systems to turn dumb buildings into smart ones.

And while there is some element of that, "what surprised me is the increasing intelligence of the 'things' in the building," Jaffe, an analyst at IDC Energy Insights, said in a blog post last month.

Heating and cooling systems in a modern building are full of chips and sensors, he noted, and "with the emergence of LEDs, the light bulb will make the leap to full-fledged IT appliance, capable of intelligent automated control and energy management."

One pioneering company, Redwood Systems Inc., is developing a networked lighting system that sips so little energy that a 2,500-square-foot room with LED lights "can be powered by an Ethernet cable," Jaffe said. The system has dozens of sensors that feed the controller with data about what's happening inside the room. The lighting can be dimmed in response to real-time energy prices or the forecast of a sunny day.

"Lighting is just one element of this new intelligence in buildings," Jaffe said. "Every other system, from the heating to the elevators to the plumbing, is turning from a set of machines controlled by a computer into a computer with machines built into it."

We are quietly entering an age of computerized building systems where "it's not about plopping computers into buildings," said Jaffe. "The building, it turns out, is the computer."

– *Mitch Betts*

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FUTURE WATCH

Scientists Create Tiny Computer For Monitoring

University of Michigan researchers last month announced that they have created the first prototype of a millimeter-scale computing system – one so small that it just covers the letter N on a penny.

The computer, called the Phoenix chip, is about 1 cubic millimeter and was designed to be implanted in the human eye to monitor the intraocular pressure of glaucoma patients.

"This is the first true millimeter-scale complete computing system," Dennis Sylvester, a University of Michigan professor and one of the researchers on the project, said in a statement.

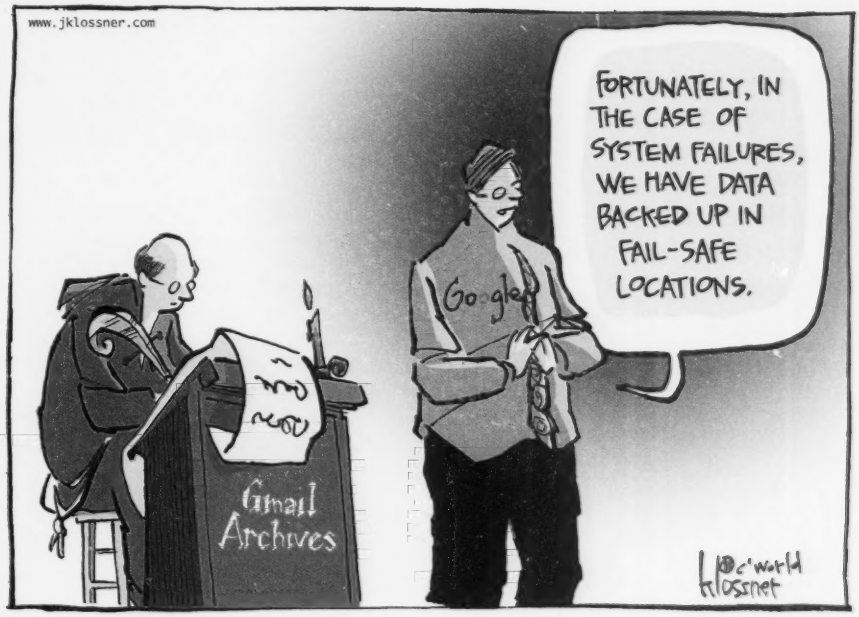
Within the computer is an ultra-low-power microprocessor, a pressure sensor, memory, a thin-film battery, a solar cell and a wireless radio with an antenna that can transmit data to an external reader.

The chip uses very little power: It has an extreme sleep mode that wakes the computer up briefly every 15 minutes to take readings, and the chip uses only 5.3 nanowatts each time it turns on.

The researchers said that tiny computers could one day be used to track pollution, monitor structural integrity, perform surveillance, or make virtually any object smart and trackable. "We can collect data, store it and transmit it," said Sylvester. "The applications for systems of this size are endless."

– LUCAS MEARIAN

BETWEEN THE LINES
By John Klossner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WIRELESS TECHNOLOGY

Femtocells Make Way Into Enterprises

THE USE OF FEMTOCELLS — small base stations that extend cellular signal coverage within buildings — is growing fast and spreading from homes to large enterprises, according to industry executives at the Mobile World Congress in Barcelona last month.

Last year at this time, all commercial deployments of femtocells were residential, but now about one-third are corporate, said Simon Saunders, chairman of the Femto Forum, an industry association.

In enterprises, femtocells not only extend coverage indoors; they can also route cell calls through an enterprise PBX to an employee's four-digit office extension, or enable video-conferencing on a tablet, said David Swift, a product marketing manager at Alcatel-Lucent.

Nevertheless, making cell phones work inside a building remains the dominant driver, said Chris Cox, a product manager at IP Access Ltd. "The tolerance for dropped calls and poor data is diminishing," he said.

While some companies discourage workers from using their mobile phones in the building because of the potential expense, they may be able to negotiate good deals with cellular providers for femtocells, the executives said.

Pricing of office femtocells varies widely and is typically negotiated as part of a larger contract with a cellular operator. For example, an enterprise might be able to strike a deal to get free femtocells in all offices while agreeing to a smaller discount on employee handsets, said Jim Tavares, director of strategy and business development at Cisco Systems Inc.

But femtocells can raise tricky issues for cell phone users near office windows. When the femtocell coverage overlaps with the outdoor macro network, it's difficult to force a user onto a femtocell, Cox said. "It's not a trivial engineering task," he added.

For that reason, most enterprise femtocells are open access, meaning that any nearby cellphone user may end up using the femtocell.

– Nancy Gohring, IDG News Service

Micro Burst

OUT-OF-DATE PLANS

A review of 215 disaster recovery plans found that only

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THINK TANK

How to Deliver Difficult News To Your CEO

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Plant offered these suggestions:

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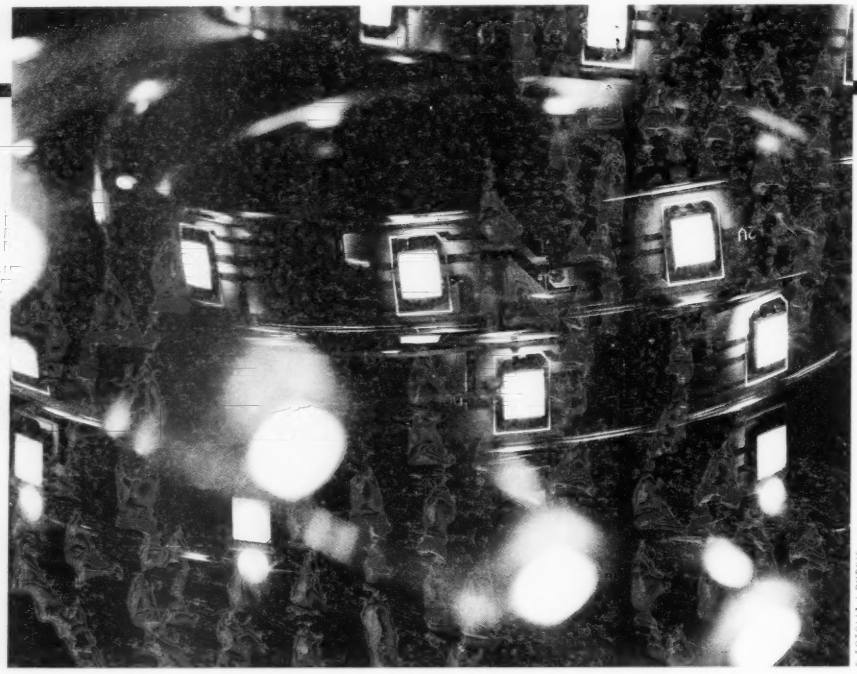

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SOURCE: IANCO ASSOCIATES INC., FEBRUARY 2011

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>
> PHIL GARLAND, PARTNER, PRICEWATERHOUSECOOPERS

NEWS ANALYSIS

Cross-Ocean Clouds Are Gaining IT Favor

Japan's AIG Edison and others say cloud benefits outweigh latency issues even when apps are hosted on the other side of the globe. By Patrick Thibodeau

JUST OVER A YEAR AGO, Tohru Futami came to the conclusion that AIG Edison Life Insurance Co. needed to upgrade its core applications.

The Tokyo-based insurer's systems were seven years old and often didn't let the back office and the sales staff share information in a timely manner. Furthermore, some of the company's processes were still paper-based.

The primary options were to rewrite the applications or move to the cloud and run hosted software, said Futami, former CIO and managing director at AIG Edison, which was acquired by Prudential Financial Inc. last month.

Spreadsheet calculations determined that an in-house rewriting of AIG Edison's applications would take about 30 months, while a move to Salesforce.com Inc.'s cloud platform would take around 10. And the cost of moving to cloud technology would be about one-third that of any other option.

AIG Edison went with the cloud, but not until it had addressed security, legal and regulatory concerns and was convinced that the location of Salesforce.com's data center on the West Coast of the U.S., 5,000 miles from the insurer's headquarters, wouldn't cause significant network latency problems.

Early in the implementation process, AIG Edison hired services firm Appirio Inc. to help make sure the cloud-based system would provide "almost the same level of response time" as the old system, Futami said.

Today, hosted apps are available to several million AIG Edison customers, millions of prospects, some 3,000 employees and about 15,000 insurance brokers and resellers. The hosted tools let users handle complex tasks, such as generating insurance quotes and running simulations to assess coverage needs.

The network does have some minor latency issues. On average, it takes 132 milliseconds to send and receive 32KB of data, according to Appirio. In contrast, it takes about 52 milliseconds to send a similar amount of information via a host site in Japan.

AIG Edison's entire client environment, which includes virtual desktops for salespeople, experiences a maximum lag of 300 to 400 milliseconds, or about one-third of a second.

Experts say cloud adoption rates could slow if users perceive that they're experiencing long delays because of network latency. Phil Garland, a partner in the PricewaterhouseCoopers advisory practice, said that user expectations, tolerance levels and business needs will determine whether latency becomes an issue.

"It really depends on what performance levels are acceptable to you," said Garland. "There are ways many providers work around [network latency] by balancing between actual performance and perceived performance. A clever client design can alleviate many issues — at least to a point."

There may be concerns about latency, but moves to the cloud are increasingly common. IDC expects U.S. revenue from public cloud computing to increase 24% this year alone, to $17.6 billion. ◆

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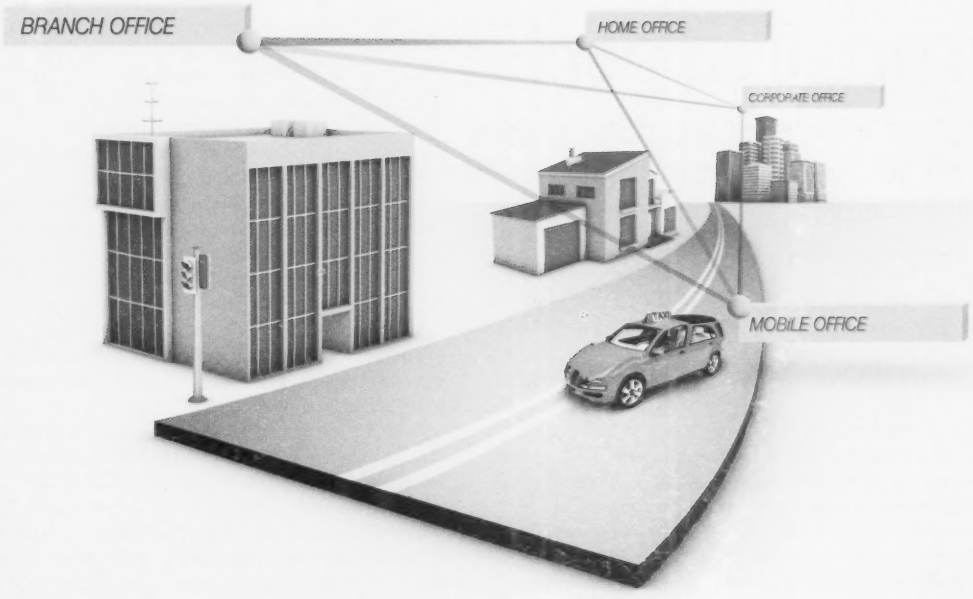

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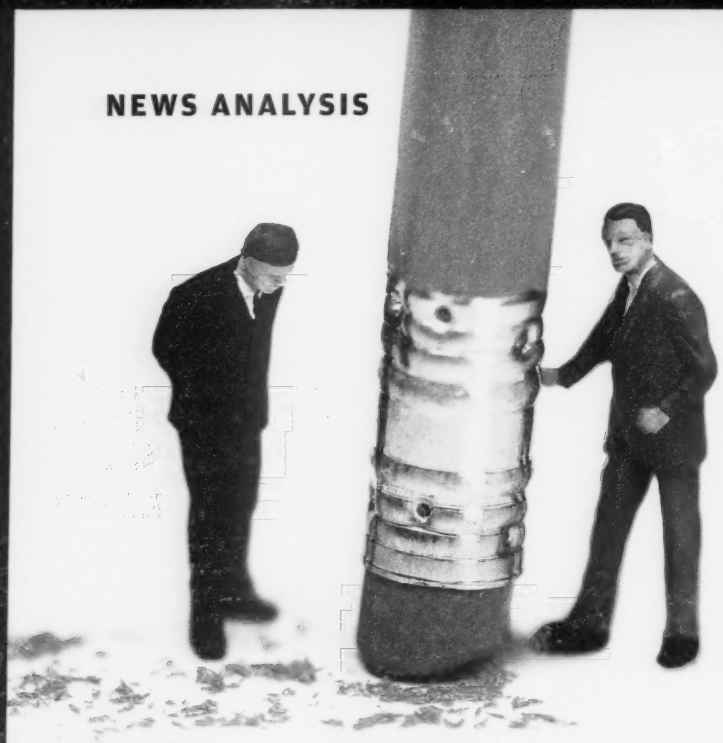

SSD Security Issues Surprise Experts

A study finds that erasing data stored on SSDs can be difficult, and at times nearly impossible.

By Lucas Mearian

UNTIL THE RESULTS of a study emerged late last month, few storage experts suspected that it would be more difficult to erase data stored on solid-state drives than it would be to erase data from hard disk drives.

"I don't think anyone ever knew about this," said Bruce Schneier, chief security technology officer at BT Group and author of multiple books on data security issues.

Other industry experts acknowledged that they were also taken aback by the findings of researchers at the University of California, San Diego. However, they mostly agreed that some SSD sanitation methods can be more successful than others.

For example, some noted that SSDs with native encryption capabilities can generally prevent data from being accessed, even after a drive's end of life.

The study found that fully erasing data stored on SSDs is at best a difficult task and at worst nearly impossible. While overwriting data several times can ensure data erasure on many SSDs, the researchers found that they were still able to recover data on some overwritten drives.

The UCSD researchers tested 12 SSDs and found that none of the available software techniques for erasing individual files was fully effective.

The researchers did not identify the products used in the test.

In a paper titled "Reliably Erasing Data from Flash-Based Solid State Drives," the researchers wrote that "all single-file overwrite sanitization protocols failed" and reported that "between 4% and 75% of the files' contents remained on the SATA SSDs."

USB flash drives didn't fare much better. Between 0.57% and 84.9% of data remained on the drives after researchers attempted an overwrite.

The researchers even tried overwriting free space on the SSDs and defragmenting them to redistribute data and encourage the flash translation layer to reuse more physical storage locations. That process also proved mostly ineffective, they said.

Data on only four of the 12 SSDs tested was erased when researchers used the native "Erase Unit" command in the drives. In that test, one SSD had reported itself to be fully sanitized, yet researchers were able to recover data on the drive.

Kent Smith, senior director of product marketing at SSD controller maker SandForce Inc., said most data stored on an SSD should be safe when cryptographic erasure processes are used.

The technique calls for first encrypting an SSD, which would allow access only to users with passwords. When the SSD reaches its end of life, the user can delete the encryption keys, which Smith said would eliminate the possibility of unencrypting and accessing the data.

"Unless you can break the 128-bit AES encryption algorithm, there's just no way to get to the data," Smith said.

The UCSD researchers agreed that crypto-erasure is a good way to ensure that an SSD can be sanitized at its end of life or when it's slated for reuse.

Schneier is a proponent of using inexpensive SSDs and encrypting their data with freeware, such as TrueCrypt, or with relatively low-cost products, like PGPdisk.

SSD makers are pushing the National Institute of Standards and Technology to redefine some of the military erase overwrite protocols to recognize that encrypted drives can be cryptographically erased without the need to overwrite the flash.

"But that's not happening tomorrow," Smith said. "Government agencies take a long time to embrace standards." ◆

> "I don't think anyone ever knew about this. – BRUCE SCHNEIER, CHIEF SECURITY TECHNOLOGY OFFICER, BT GROUP

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THE Grill

Ben Fried

Google's CIO welcomes the challenge of serving demanding users.

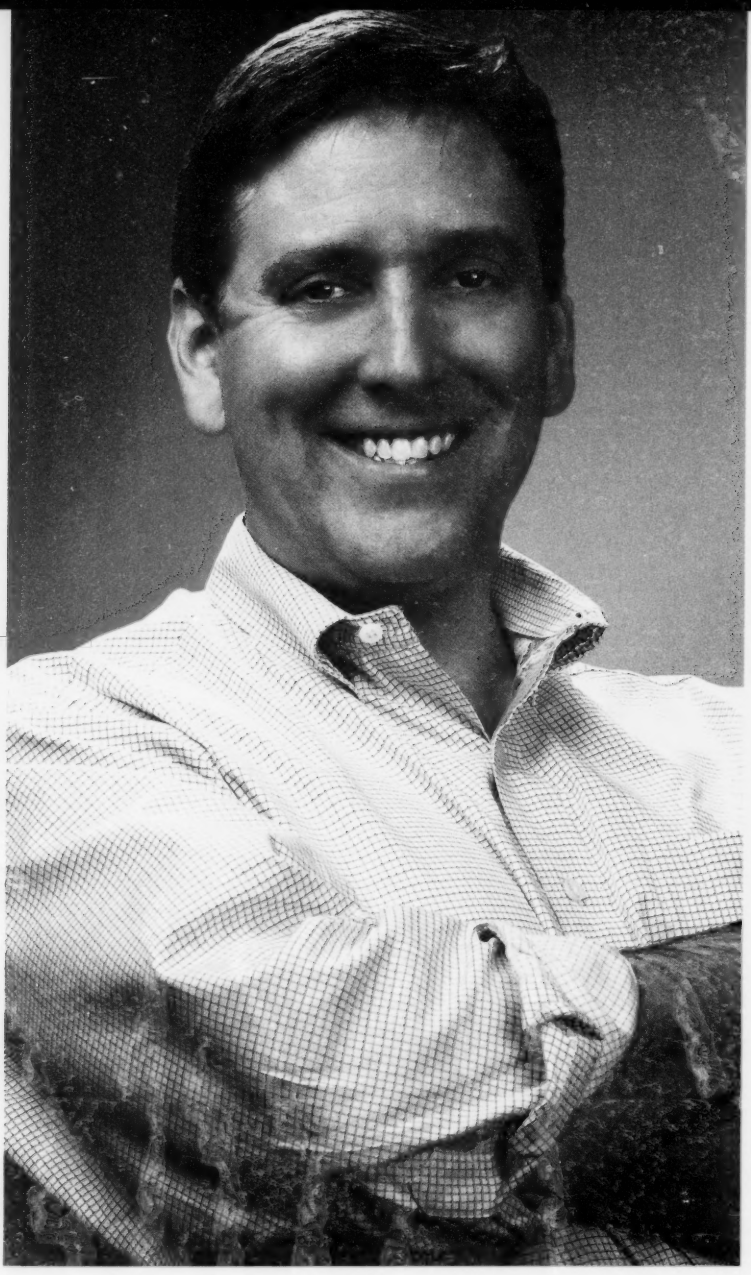
Most interesting thing people don't know about you: I nearly went into the U.S. Foreign Service.

Ambition: To deliver world-class IT to Google and show the world how we do it.

Role model: I've been especially lucky to have had great role models at each stage of my career.

Favorite nonwork pastime: With three children under the age of 9, sleep is high on the list. In what's left of my time, I like to watch movies, write code (for myself), read and cook.

Philosophy in a nutshell: Is there such a thing?



PHOTOS COURTESY OF GOOGLE INC.

WHEN BEN FRIED *left his post as IT managing director at Morgan Stanley and took over as Google Inc.'s CIO in May 2008, he knew what he was getting into: He would have to support a user base full of technology experts and computer industry stars, like co-founders Larry Page and Sergey Brin, CEO Eric Schmidt and Vice President Vint Cerf. In a recent interview, Fried spoke candidly about his job and shared tips for fellow CIOs, including a call to "think hard" about tablets and develop strategies for using them at work right away.*

What are the challenges and satisfactions of being CIO of a company with thousands of computer engineers, as opposed to being CIO of, say, a fast-food or retail chain? Some things about it are really hard because many brilliant technologists are my customers. You have to have a thick skin. That's also true for people in engineering who build Google

Continued on page 10

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> **It's incredibly hard because I have the most demanding users in the world,** but there's no better way to be great than by having demanding customers.

Continued from page 8

products, because we test the products internally. What's different about Google is that we produce astoundingly high-quality products and we have an ability to use technology to shape the organization that you don't necessarily have in other companies. We have leadership that fundamentally and deeply understands what me and my people do, which is awesome. So it's incredibly hard, because I have the most demanding users in the world, but there's no better way to be great than by having demanding customers. The results are incredibly rewarding. When I see the work that my people produce, I'm just awed by it.

What have been your biggest accomplishments as Google's CIO? Every manager I know hesitates to answer that type of question because it's the things you don't put in the answer that will cause you problems, and I'd risk offending a lot of people. At a high level, there's this really neat value at Google that we don't create the processes that our technology allows, but rather we decide what we want Google to be and we create technology to enable that.

I'm proudest of things where we've allowed Google to be different. Google hires people, promotes people and rewards people in ways that are unique. All of those things and many other things that [Google does] that are unique are also supported by software that my organization does, builds and writes. I'm also proud that we give our users choice in personal technology and that we've built an astoundingly good customer support organization: The first responder to your problem will solve it about 90% of the time.

How do Google's marketing and business strategies and principles limit or expand your technology choices? There is a very specific answer about our philosophy regarding what the role of IT needs to be at Google. Obviously, we're part of Google, and making sure that Google tries out its products and that its users make those products better is incredibly important. That's clearly part of our job.

But my mission, writ large, is to make this an incredibly productive organization. A way to do that is through a philosophy of choice. We allow users, within certain constraints, to choose the tool set with which they can be more productive. That produces the best overall environment. Of course, over the course of time, we may change our minds over what the scope or spectrum of those choices are.

Are you standardized on Google Apps and Docs or do you also use Microsoft Office? We definitely use Microsoft Office inside the company, as well as OpenOffice. What we've found is that in an environment of choice, people use Google Apps for a majority of their work. Apps was designed around observations of the way we work here. In some sense, it's almost a false comparison with other office suites. Apps is optimized around a workforce and style of work where collaboration is at the core. That's the most important thing. There are lots of things that Apps doesn't do, and the Apps team would be the first to tell you that, but what it does do and the style of work it does enable is how Google works as a company.

How much input do you and your team get asked for regarding product development decisions? We have very strong relationships with the enterprise team and other related areas. It depends a lot on the particular area. There are a bunch of products on which we spend a lot of time talking to product managers and product teams about what our needs are. We do a lot of it. It's an important part of what we do.

You've mentioned that tablets are something CIOs need to pay attention to. Why? There's going to be a ton of tablets out there, and people will bring them to work. It will follow the path of BlackBerries. My advice to CIOs now is to look at tablets and think hard about what your strategy is. If you look at the variety of Android tablets coming out, it's clear that it will be a diverse landscape and you have a chance to get in ahead of this. CIOs are going to have to think about software delivery. Are we going to buy software for these tablets? Do we have to think about training for our development organizations to learn how to build for these things? Do we have to think about optimizing Web browser experiences to work for this stuff? CIOs need to have a strategy and opinions about tablets because it will be the next personal computing platform that we're expected to provide at the enterprise, and very quickly. It will be this year.

— Interview by **Juan Carlos Perez** *of the IDG News Service (juan_perez@idg.com)*

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Surviving CIO Regime Change

The average CIO stays on the job around four years. So chances are you'll live through at least one changeover. Here's how to make sure it doesn't derail your career.

By Minda Zetlin

HOW LONG does the average CIO stay on the job? Not very long. According to a Gartner Inc. survey of 1,527 CIOs, their average tenure in 2009 was four years and four months, a figure that has changed relatively little over the past several years, according to Mark McDonald, group vice president of Gartner Executive Programs. "It's been between four years and three months and four years and nine months," he says.

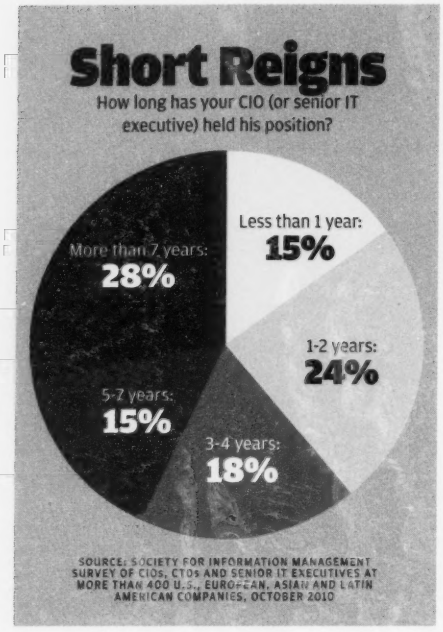
An annual Society for Information Management survey of SIM members and of companies in Europe and Asia paints a similar picture, with the average tenure lengthening from 3.6 years in a 2006 SIM study to 5.1 years today. The median tenure is between four and five years, with 57% of respondents reporting that their companies' top IT executives had been in their jobs four years or less (see chart on page 14).

PHOTO BY JOHN SOARES

When a new CIO arrived at EMC, Ken LeBlanc, now a business unit CIO with EMC's RSA security division, saw an opportunity to get more involved in business operations.

"There are many reasons CIOs leave their jobs," McDonald notes. "One fairly reasonable one is retirement. For many people, CIO is their apex job. That might account for about 25% of departing CIOs. Another third of them choose to get a job elsewhere, and probably a third lose their job, most often because of a change in leadership at the top of the organization, or else because of a failed project. The remainder move on to some other role within the organization, on the business side or in some other area."

One thing is clear: If you spend your career in corporate IT, you will likely live through more than one CIO regime change. In fact, in a 30-year tech career, you can expect to adjust to a new CIO at least six times. Yet despite the frequency of new CIO arrivals, many in IT handle these transitions badly. Whether they bad-mouth the previous CIO, create elaborate presentations about their own importance or demand more funding, lower-level techies and midlevel managers alike make a wide array of errors when a new CIO arrives. Here are some of the most common — and most costly — missteps.


Short Reigns
How long has your CIO (or senior IT executive) held his position?
Less than 1 year: 15%
1-2 years: 24%
3-4 years: 18%
5-7 years: 15%
More than 7 years: 28%
SOURCE: SOCIETY FOR INFORMATION MANAGEMENT SURVEY OF CIOs, CTOs AND SENIOR IT EXECUTIVES AT MORE THAN 400 U.S., EUROPEAN, ASIAN AND LATIN AMERICAN COMPANIES, OCTOBER 2010

Defending the Status Quo

"Don't ever say the words, 'That's not how we do it around here,' " McDonald warns.

It may be human nature to resist change, but it's foolish to expect that a new CIO won't shake things up. If top management was displeased with the previous CIO's performance, it's likely that the new CIO has a mandate to revamp or rethink IT in fundamental ways. But even if the old CIO left on good terms, a new CIO will want to make his or her mark. And that's a good thing, says Ken LeBlanc, vice president, business unit CIO and SaaS operations at RSA, the security division of EMC. "Any time there's a change, whether it's a new leader or something else, there's a great opportunity to pause and reconfirm that your priorities are right to stay current with changing expectations," he says.

Sometimes that change of priorities means new opportunities. LeBlanc had spent four years as chief of staff to EMC's previous CIO when a new CIO arrived. LeBlanc wanted more involvement with business operations, so when the opportunity arose, he transitioned to his current role as a business unit CIO.

In some cases, a new CIO may make dramatic changes to your role, or cancel a project you've been working on, making accepting change particularly difficult. "People do get emotionally invested in projects, sometimes to the detriment of the overall organization," says Dan Gingras, a partner in the IT practice at executive search firm Tatum LLC. "That's one of the biggest problems we see in IT today."

He recommends doing some research rather than digging in your heels. "Try and understand the motivation for killing your project," Gingras says. "Find out if it was because of the budget or a change in direction. Or it may be something that you can't be privy to, and then you have to take a leap of faith."

He also recommends some soul-searching. "You have to be introspective about the reasons your project was killed," Gingras suggests. "Was it something you should have foreseen? If so, you may need to be more aware of the bigger circumstances around your job."

Not Learning the New CIO's Priorities

If your IT department is like many others, the news that a new CIO is about to arrive will prompt staffers to frantically search the Internet, watch presentations on YouTube, query colleagues and read IT industry publications in an effort to learn whatever they can about the newcomer. "It's hard for a CIO to be anonymous," McDonald says. "They will have some presence in the Internet sphere, which should give you a sense of how the new person talks and what's important to him or her."

Make a special effort to find out what's important to the newcomer, he advises. In fact, when you meet the new CIO, the first thing you should do is ask about his priorities. "Say something like, 'I'd like to understand why you came here and what upper management expects from you,' " he says. "You may get an answer like, 'They hired me to consolidate IT operations.' "

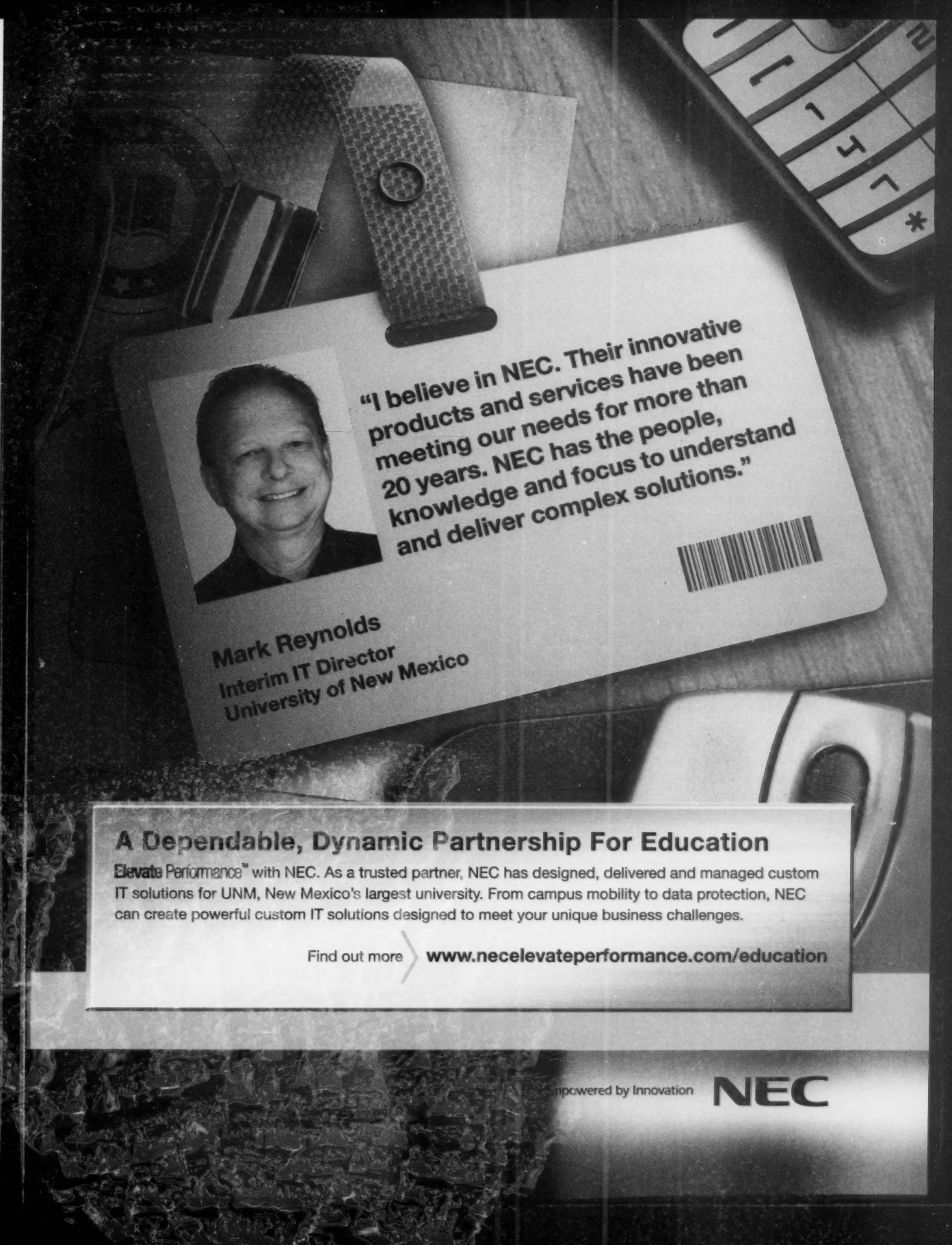
Whatever that mission is, make it your mission. "Ask the new boss what you can do to help him or her be successful," Gingras says.

Similarly, it's wise to give careful thought to the new CIO's priorities before requesting extra funding or other resources. "Too many people come into a new CIO's office and say, 'I'm sure glad you're on board, because we couldn't get anything done with the previous CIO. Here's what we're doing, and if we just had additional resources, we could deliver much more,' " notes Steve Watson, managing director for the Dallas office of search firm Stanton Chase International.

It's likely that the CIO is facing pressure to cut IT costs, Watson points out, so you're better off looking for creative ways to reduce your expenses. "That's a mindset that rising stars ought to have," he says.

Continued on page 16

> **Don't ever say the words, 'That's not how we do it around here.'**
>
> **MARK McDONALD,** GROUP VICE PRESIDENT, GARTNER EXECUTIVE PROGRAMS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People have a tendency to try to hide problems. . . . Then, when it does come up, it looks even worse.

KEN MADDOCK, VICE PRESIDENT OF CLINICAL ENGINEERING AND TELECOMMUNICATION SERVICES, BAYLOR HEALTH CARE SYSTEM

Continued from page 14

Offering Too Much Information

Unless a new CIO was promoted from within your organization, he or she will know little about your IT projects or teams. So you'll need to provide a report about your duties — and that's where many IT managers go into overdrive.

"Everyone else will snow the new CIO with 20-to-30-slide presentations and organizational charts, trying to justify their existence," McDonald says. "But if you lay out a lot of slides, that makes you seem big, which equals expensive." He recommends a briefing that's no more than 10 minutes long. "CIOs appreciate anyone who recognizes that they don't have a lot of time," he says.

Another good approach is to ask the CIO what information is wanted, and in what form. "You can say, 'Please explain to me what your communication style is, and here's what mine is,' " says Ken Maddock, vice president of clinical engineering and telecommunications services at Baylor Health Care System.

At the same time, be sure to let the new CIO know about any obstacles you're facing. "People have a tendency to try to hide problems," Maddock says. "They think they have time before the new CIO learns that something is going on, and that they can get it fixed. Then, when it does come up, it looks even worse."

Being very open about problems is the strategy Maddock pursued when a new CIO arrived at Baylor. The department had faced some uncertainty and had suffered some staff reductions, and many of his co-workers either laid low or planned their departures. But Maddock's policy of honesty paid off. He was previously director of biomedical engineering but was brought into a departmental leadership council and was eventually promoted to his current position by the new CIO.

Trying to Be Inconspicuous

Many employees believe that the safest course is a wait-and-see approach, keeping a low profile until they can get a feel for how the new boss works. While this may seem logical, it can be bad for your career.

"There are two dangers to laying low," says Larry Bonfante, CIO at the United States Tennis Association. "First, if you're one of the nameless, faceless masses, it's easier to think of you as expendable. Second, if I'm in that position, I'd rather know sooner than later where I stand, and whether I'm going to be part of the solution here or need to go on to a new opportunity."

Hello, I Must Be Going

YOU SHOULD ALWAYS approach a new CIO with an open mind, a positive attitude and a willingness to do whatever is needed to support a new strategy. But there are times when a new CIO's arrival means you should start planning your departure. Here are some signs that it may be time to consider a change:

- **The new CIO is intent on bringing in a new team.** "If a CIO who comes in with an intact management team starts shooting people on day one and bringing in his or her own people, that indicates that the CIO has preconceived notions of how to manage the IT operation," says Larry Bonfante, CIO at the United States Tennis Association. "It's an indication that you should get out of Dodge."
- **The new CIO doesn't seek your input.** "When I came in, I sat down with each of the members of the team so I could get their perspectives," Bonfante says. "If someone doesn't do that, it's a bad sign."
- **The new CIO only pretends to listen.** "You have to start off by being open, and see how the new person responds," says Ken Maddock, vice president of clinical engineering and telecommunications services at Baylor Health Care System. "Is the new CIO actively listening, really paying attention to what you're saying? Or just going through the exercise of theoretically listening? And if the person is really listening, what is the response? Does the new CIO let you come up with your own solutions?" If an incoming CIO doesn't really listen to incumbent IT executives, it's probably time to move on.
- **The new CIO is a former rival.** If the company promoted one of your rivals from within the IT organization, and the rivalry was collegial, you can and should find a new way to work this person. Make it clear you understand that this is a new day, that your former competitor is now the boss, and that you will do everything to support him or her. "However, if the rivalry was somewhat unhealthy, you should probably get out your résumé," says Dan Gingras, a partner at Tatum. "It depends on the politics of your organization."
- **The old CIO offers new opportunities.** If your skills are polished and marketable and you have a good relationship with the former CIO, then his or her departure could represent an opportunity for you. "If the CIO you worked for has gone on to better things, you may be pulled along," Gingras says. "I have a very short list of people I would take with me to any new CIO job — and I have [done so]."

— MINDA ZETLIN

Experts recommend taking the initiative. "You should really approach your new boss, or your boss's boss," Gingras says.

Like most of the advice in this story, that's a good strategy for IT employees at every level, though the approach might vary depending on what you do. "Even if you're a PC technician, it never hurts to knock on the door and say, 'Welcome to the company! How can I help you succeed?' " Gingras says.

If you don't have the opportunity to directly give the new CIO an overview of your responsibilities, then offer one to your immediate boss for him or her to pass on to the CIO, Watson advises. "It's always a good strategy to make your boss look good, so proactively providing an executive summary of your responsibilities and deliverables status could set you apart."

When you do get a chance to talk to the new CIO, always remind him or her of your name, Watson says. "And when attending a joint meeting with the CIO and your peers, find opportunities to speak out and offer added insight or data," he says.

You should avoid sitting through such a meeting without saying anything, he adds. But at the same time, "be careful not to over-speak, and not to appear political," he warns.

Failing to Reapply for Your Job

"When a new CIO comes in, you're in essence auditioning for your job," Bonfante says. "You should be confident that you have value and willing to market what you've done for the organization. But don't act like the job is guaranteed. You should always act as if you're being interviewed."

"It may not be obvious, and it may not be stated," Gingras adds. "But the new CIO will come with his or her own ideas, people and processes. There's a tendency for IT employees to think that they're untouchable because they've been with the organization for 10 or 20 or 30 years. No matter what's happened in the past, you effectively have to reapply for your job."

Attitude is everything. "You'd be surprised how often people want to tell [a new boss] about all the bad things in the organization," says Gingras, who often works as an interim CIO. You wouldn't talk like that at a job interview, and you shouldn't in this situation either.

"Focus on areas where you think you can improve IT, and talk about your ideas," Bonfante says. "Nobody cares how bad the old CIO was. The past is the past, and putting someone else down will not make you look good in anybody's eyes."

Giving In to Fear

"The No. 1 thing I've learned is, don't assume bad things are going to happen, and don't go into it with illusory fears," Maddock says. "People have a tendency to assume the worst when someone new comes in. Instead, go in with a positive attitude, and that will be infectious."

After all, you may not be the only one who's afraid. "Remember that the person walking in the door is a human being and probably has the same fears you do," Bonfante says. "So give the new CIO the benefit of the doubt." ◆

Zetlin *is co-author of* The Geek Gap: Why Business and Technology Professionals Don't Understand Each Other, and Why They Need Each Other to Survive *(Prometheus Books, 2006).*

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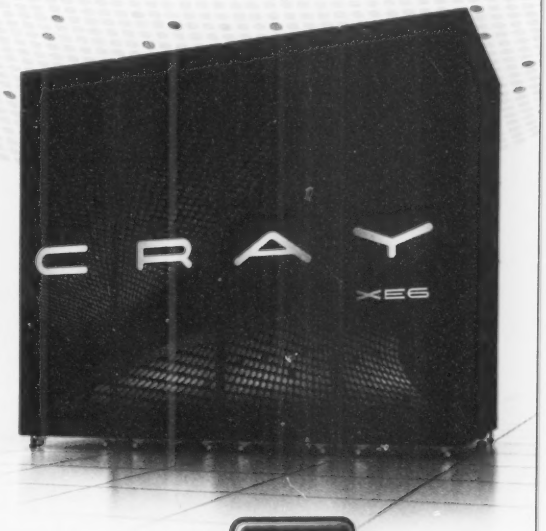

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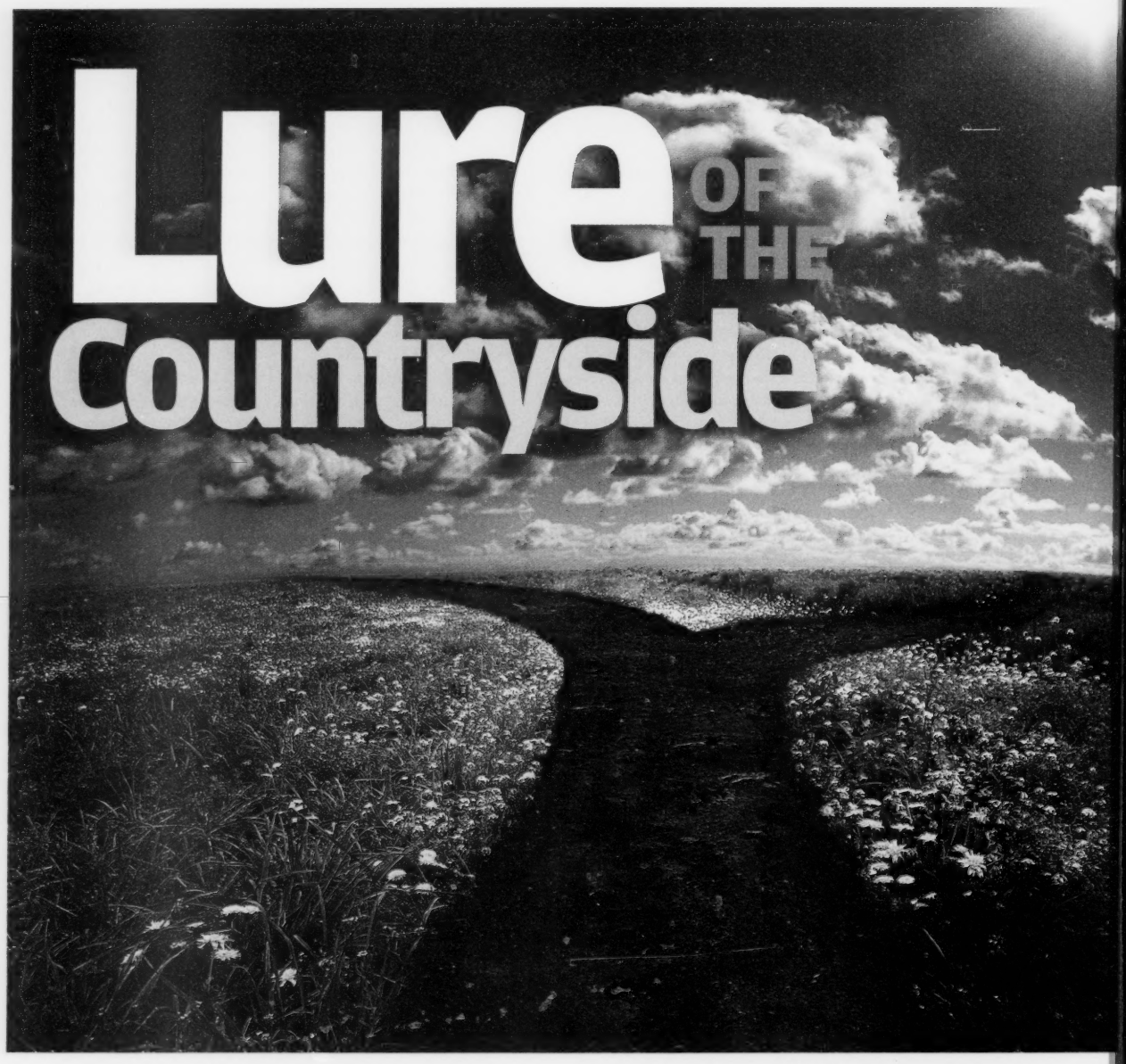

Rural outsourcing is on the rise, offering **better intrateam communication** than offshoring and **better pricing** than the huge firms.

BY BOB VIOLINO

FOR YEARS, U.S. companies have been shipping development work and other IT tasks offshore to take advantage of low labor costs. Now a growing number of organizations are tapping lower costs closer to home, by hiring outsourcing providers with operations in rural areas of the U.S.

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Hard numbers on the growth of rural outsourcing are difficult to come by because none of the leading IT and sourcing research firms breaks out data specifically on rural outsourcing. But Mary Lacity, professor of information systems at the University of Missouri–St. Louis College of Business Administration, who has been conducting extensive research on the market, says that in the past year or two, there has been huge demand for the services.

One indication of the growth in demand, Lacity says, is that the service providers are quickly expanding their staffs. "Suppliers are scrambling to get enough qualified people to make sure they can meet the surge in demand," she says. "So many clients I've heard from are interested in this model." Lacity estimates that there are about 20 rural outsourcing providers in the U.S. and, based on her analysis of the providers, the total market size is about $100 million.

Pros and Cons

Rural outsourcing provides the same basic benefits as other outsourcing arrangements: ready access to technology expertise and resources that the client lacks internally.

But the model offers both advantages and disadvantages when compared with other outsourcing options. On the plus side, rural outsourcing can provide the same or similar cost benefits as offshoring. Because the service providers operate in areas of the country where the cost of living is lower, they can pay lower salaries and thereby keep costs down. That's something that, in many cases, IT service providers operating in more metropolitan areas of the U.S. couldn't do.

And when U.S. companies do business with rural outsourcers, neither party has to grapple with the big time-zone gaps or language and cultural differences that can complicate offshoring relationships.

While it can take up to 18 months to work out all the issues related to offshoring, "with some of the rural outsourcing approaches we're seeing, the proximity to the client can mitigate these challenges," says Steven Hall, a partner and managing director at TPI, a Houston-based consultancy that helps clients handle a variety of sourcing issues. In other words, the advantage of working with a rural outsourcer isn't just that doing so can save time, but that it can help the client avoid the potential hassles of an overseas engagement.

Another big advantage is that hiring a U.S.-based firm may be more politically acceptable for many organizations, and it can be more compatible with an enterprise's mission statement or corporate values. Indeed, public sector agencies can be legally bound to do business with U.S. partners, unless there aren't any that provide the services they need.

On the negative side, rural outsourcing providers in general don't have the financial resources or the broad arrays of skills that big global IT service providers have. And they often don't have as many years of experience as their overseas counterparts.

PHOTO COURTESY OF UNIVERSITY OF MISSOURI-ST. LOUIS

PROFESSOR MARY LACITY of the University of Missouri–St. Louis says demand for rural outsourcing services has been strong in the past year or two.

"In general, the rural outsourcers haven't fully implemented the process maturity models, such as CMMI," says Hall, referring to the Capability Maturity Model Integration approach to process improvement. "That means oftentimes you're not going to get the higher levels of quality reviews or process improvements that we've seen" with bigger outsourcing firms, he adds.

Hall says most outsourcing engagements with rural service providers are relatively small initiatives; the total value of a contract is typically less than $5 million. Nevertheless, rural outsourcing is having an impact on companies' abilities to solve problems and meet immediate needs.

The Rawlings Group, a LaGrange, Ky., company that provides medical claims recovery services for healthcare clients, uses various application development systems, including .Net programming. It's working with Rural Sourcing Inc., which is based in Atlanta and has development centers in Jonesboro,

Tips for Going Rural

1 **Remember that rural outsourcing companies are generally equipped to handle specific tasks well, but they don't necessarily have the depth and breadth of expertise needed to take on a wide variety of IT projects.** You should thoroughly research these providers to understand what they can and can't offer.

2 **Don't forget that many rural outsourcers haven't fully implemented process maturity models such as CMMI.** That means you might not get the level of quality reviews or process improvements that you would with larger outsourcers.

3 **Be advised that IT service providers located in rural areas might not have ready access to a well-trained workforce with the skills you need.** Find out how they will recruit and train people for your projects, and determine how long that will take.

4 **Look at the outsourcer's security, data privacy and intellectual property protection capabilities** – just as you would in any outsourcing relationship.

5 **Adopt a strong governance program to oversee every aspect of the relationship,** including the contract, service levels, problem resolution policies and security.

6 **Structure the deal in a way that allows you to frequently evaluate the quality of work delivered,** so you can make quick adjustments when necessary.

– BOB VIOLINO

Ark., and Durham, N.C. Rural Sourcing has provided developers to work on projects related to Rawlings' internal accounts-receivable processes.

Kevin Landgrave, senior vice president of IT at Rawlings, says the company opted to outsource because it lacks the internal resources to complete development work quickly, and it chose to work with a U.S. partner because it didn't want to deal with the time zone and communication problems often associated with offshoring.

Ramp-up Time: A Blessing and a Curse

While lower costs are among the advantages of rural outsourcing, saving money isn't always the biggest benefit, Landgrave says. For some companies, the real value of outsourcing comes from increased agility and speed of development.

"From a cost perspective, rural outsourced resources are roughly the same as the loaded cost of an internal resource but allow us to ramp up and down quickly," Landgrave says. "We are able to meet our deadlines because of the extra programming bandwidth."

But not everyone has experienced the same benefit. In some cases, rural ramp-up time just isn't fast enough to meet a company's needs.

Pedro Villalba, senior vice president and chief technology officer at Emblem Healthcare, a New York-based health insurance provider, has used IT services from CrossUSA in Burnsville, Minn., since 2004. Emblem has worked with CrossUSA on about 50 projects related to its mainframe applications.

"In the rural areas where the project centers are, they don't have tons of IT resources just waiting for work," Villalba says. "Cross must recruit and often relocate and train the resources for the work we need, hence the importance of holding on to the resources."

But Villalba says that's the only downside of rural outsourcing he has experienced. Emblem has been able to move rural teams from one project to the next. "We see a big improvement in the area of work quality and productivity, because CrossUSA understands our business, and the resources don't have to keep relearning to be effective," Villalba says.

For its part, Rawlings not only gains access to development resources by working with Rural Sourcing; it also benefits from the fact that Rural Sourcing staffers have flexible schedules and diverse programming skills, says Landgrave, adding that the outsourcer's employees have easily blended into Rawlings' existing teams and processes. "The primary plus of Rural Sourcing for us has been how seamlessly resources have integrated into our development life cycle," he says."

MATT ROSS says FormShare gains flexibility with rural outsourcing.

Another company that has benefited from rural outsourcing is FormShare LLC, a Miamisburg, Ohio, provider of paperless workflow applications for schools. In May 2010, FormShare began outsourcing application development work to Rural America OnShore Outsourcing Inc., which operates development facilities in Ohio, Kentucky and Wisconsin.

FormShare relies on Rural America to maintain its current applications and help create new features, says Matt Ross, president of FormShare.

Prior to hiring Rural America, FormShare primar-

When I looked into offshore businesses, I found there was no vision, creativity or a real understanding of the American market.

JOHN SABET, PRESIDENT, CHARLESTON ALEXANDER DIAMOND IMPORTERS

ily used in-house developers to maintain and enhance applications. "When we had [development] in-house, we found that the team was too small, and in a lot of cases there was a single point of failure, so if something happened to a single developer, we would lose a lot of knowledge with them," Ross says.

Savings Is Key

Rural America offers a subscription plan that gives clients the opportunity to sign up for short-term engagements — even as short as a few months. Its services include application integration, Web site development, business analysis, support and maintenance of legacy applications, and testing. Thanks to the flexibility of Rural America's subscription plan, FormShare can bring on more resources during busy times and cut back when things slow down, Ross says.

In the past, FormShare had augmented its staff with outsourced services from larger providers, but those services cost more than Rural America's. Ross estimates that his company is saving 10% to 15% by going with a rural outsourcing option for its development projects.

Having worked with the rural outsourcer on a three-month deal and finding that it was a good fit, FormShare hired Rural America for a longer engagement. Ross declined to specify how long the new deal will last.

For his part, Villalba says that compared with the prices larger outsourcing providers would charge, rural outsourcing has saved Emblem Healthcare 40% to 50% on mainframe and legacy systems work.

Customers point out that another benefit of rural outsourcing is that the service providers generally boast high employee-retention rates. In the areas where they operate, the domestic outsourcers are typically considered employers of choice, and people with IT expertise tend to stay with them.

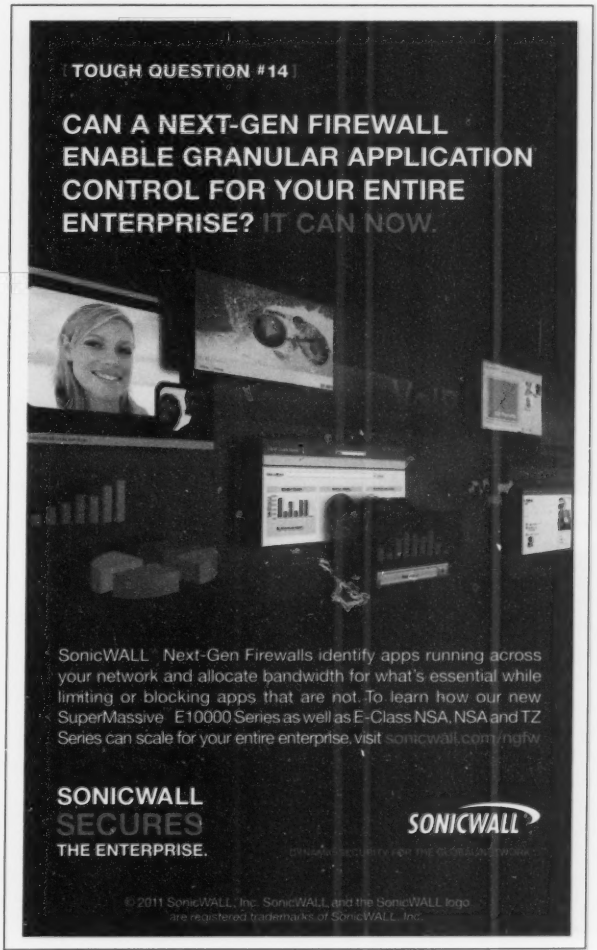
In the case of Rawlings' relationship with Rural Sourcing, the service provider's retention rate "is so high that we are able to use the same people over and over, which protects the investment we make in teaching them our environment and methodologies," says Landgrave. That's vastly different from Rawlings' experience with offshoring, he adds. In those arrangements, he says, "we've had offshored resources leave their company because the company down the street offered better chairs!"

Another Rural America client, Charleston Alexander Diamond Importers, began outsourcing mobile application development, Web development and other functions in 2009.

Rural America has been particularly effective in helping the Bethesda, Md.-based jewelry retailer revamp its Web site and e-commerce operations, says John Sabet, president of Charleston Alexander.

"When I looked into offshore businesses, I found there was no vision, creativity or a real understanding of the American market. And I found myself having to outline in great detail every little thing [that] needed to be done and manage every detail," he says. "With Rural America, I was basically presented with my finished product and only had to tweak a few things, not micromanage the building of a huge e-commerce site." ◆

Violino *is a freelance writer in Massapequa Park, N.Y. You can reach him at bviolino@optonline.net.*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SWEET-SPOT PRICING

Price optimization software

helps retailers, hoteliers and other businesses set just the right price to appeal to customers.

BY STACY COLLETT

FIVE YEARS AGO, executives at InterContinental Hotels Group decided it was time for the company to regain control of its pricing destiny. Industry dynamics were changing rapidly. The market was flooded with online distributors selling hotel rooms; travel Web sites let consumers compare IHG's rates to competitors' prices; and third-party companies were snatching up rooms in bulk and reselling them at prices they chose.

"We wanted to take more control over our inventory while keeping prices as competitive as possible," says CIO Tom Conophy. "If you're late to the game, you lose revenue on both the upswing and the downside."

The company started thinking about new sources of information it could leverage to help drive its pricing strategy. That's how IHG's proprietary price optimization application came into being. Today, more than 1,800 IHG properties worldwide use the price optimization component of the hotelier's Perform revenue management system, and they have reported margin increases of 2% or more.

Tom Conophy

"The real magic in price optimization was that we brought in competitive data and third-party information, along with [historical] data we already had in the system, and then set pricing strategy," Conophy says. Hotels can now set prices more quickly and competitively, and they can forecast rates and demand up to a year in advance.

At a time when most companies are under pressure to increase profits and have already squeezed out every last cost-cutting dime, increasing profit margins is the next frontier. Price optimization software, which helps calculate demand for a product or service at different price points, has been around in some variation since 2003 — but more mature, off-the-shelf options and easy-to-understand dashboards are making these systems accessible to business users, not just number-crunching Ph.D.s.

Gartner Inc. predicts that the price optimization software market will grow from $180 million in 2009 to $425 million by 2013, representing almost 4% of the customer relationship management market.

"Now is the age of support and governance," says Gartner analyst Michael Dunne. "How do you push this information out and make it work with the folks at the deal desk, the business response teams or the sales operation? [And] how do you provide more direct insight to those who handle channel management to the partner networks?" In most industries, price optimization is becoming the answer.

Today's price optimization tools have a cockpit or workbench feel that enables power business users to gain visibility into models, business rules and formulas. The

© FOTOLIA / MYKOLA VELYCHKO

software is also more configurable than earlier systems. Some vendors now offer hosted price optimization applications or mobile access to reports and figures. "One of the bigger trends we're seeing is the integration elements. You can integrate this pricing intelligence into other types of applications," Dunne adds.

Manufacturing, distribution and logistics companies traditionally represented half of the price optimization market, with retailers, hoteliers and niche users accounting for the rest. Now industry watchers see new categories of price optimization software users in the high-tech, communications, pharmaceutical, medical device and service industries.

"Part of it is democratizing the information" and making the underlying systems simpler "so it's easier to deploy, and it doesn't scare people," Dunne says. "These are seven-figure investments. You do get the business [executives] watching."

Companies that started price optimization projects in 2008 and 2009 report margin increases of 2% or more, Dunne says. "People are gaining experience with this. Even during the recession, we still came across folks [who said] they were actually getting margin out of the products that were the focus of these pilots, when everything else was going to pot."

Ray Voelker

Price optimization systems can be costly. In 2003, systems that cost about $1 million were common because projects were small in scope and may have included only a few users in finance and marketing and on the price desk. Though packaged price-optimization products now come more than 50% ready to use right out of the box, when you add the costs of hardware and systems integration help, the total price tag soars, Dunne adds. What's more, today's price optimization tools are also used by business units and sales staff. All told, the cost can far surpass $1 million, Dunne says.

IHG has spent between $5 million and $10 million on the technology alone for its price optimization tool. But the ROI can't be ignored. The 1,804 hotels that now use it have improved their revenue per available room by at least 2.5%, and some hotels have experienced even higher increases, Conophy says.

Customization

Most price optimization software requires some customization and integration help. Companies in specialized vertical markets require extensive customization and often build their own systems.

The insurance industry, for example, has its own set of pricing challenges. At Progressive Insurance Co. in Mayfield Village, Ohio, it's all about slicing the data and predicting the costs of future losses based on the attributes of customers, who represent 11 million active policies. Progressive developed a proprietary price-optimization system with "a lot of very heavy-duty statistical and actuarial analysis," says CIO Ray Voelker. Still, "it's almost impossible to predict precisely whether an insured person will have an accident." But the company is getting closer to making that possible.

In Virginia last year, Progressive rolled out a device that a driver plugs into the onboard diagnostic port of his car. The device records the individual's driving habits — noting how often he slams on the brakes (or not), for example — and then sends the data back to the insurance company, which houses the data on servers three times the size of those used to manage its 11 million policies. Drivers may get a premium discount, or increase, based on their habits behind the wheel, and the data can also be used to predict pricing for other drivers. "It gets us closer to having a technology that's better predictive of our actual [claims] costs," Voelker says.

Progressive aims to price at a 4% profit margin, and price optimization software helps it reach that goal.

IHG, for its part, used an existing proprietary system with historical data, along with a third-party data source that scans competitors' rates. One thing that added to the system's complexity was the fact that it had to account for "length of stay" metrics — a piece of the pricing puzzle that's unique to hotels. Factors such as duration of stay, time of the week, time of year, special discounts and local events that drive demand come into play as IHG's system calculates tens of millions of rates daily for 4,500 hotels representing 650,000 rooms across the globe.

"At some point, it gets beyond human comprehension. That's why the tool is so powerful. It gives revenue managers a dashboard that you can make sense out of," Conophy says. "The price optimization tool is very visual, with graphs and tables to show how well you're performing today, tomorrow and next week against demand, against your price, and where your suggested price should be."

Dunne says he sees continued growth in price optimization adoption. In this economy, "life isn't easy," he notes, "and [executives] need to think about quality of business, having revenue, margin and profitable growth." When it comes to investments in price optimization, he adds, "they're willing to pay the price." ◆

Collett *is a Computerworld contributing writer. You can contact her at stcollett@aol.com.*

A SMALL MARGIN LIFT EQUALS BIG PROFITS

Small changes in price can translate into huge improvements in profitability, according to McKinsey & Co., a management consulting firm.

In a 2003 study of financial data for 1,000 companies that Compustat had compiled, McKinsey found that a 1% increase in price, at a constant sales volume, would produce on average a 7.4% increase in profitability.

The McKinsey study also showed that pricing has a greater impact on profitability than either increases in sales volume or reductions in cost — areas that typically receive far more attention from management.

What's more, companies have access to more margin-pumping data than they may realize. Data from their ERP, CRM and supply chain management applications and specialized industry systems often isn't leveraged in setting prices. Price optimization software can offer a structured, automated approach to pricing science and best practices.

Price optimization tools don't replace other business intelligence tools; they complement them, says Gartner analyst Michael Dunne. That's especially true of industry-specific applications, such as the software that InterContinental Hotels Group uses to calculate millions of prices that vary based on factors such as length of stay — a metric that other industries don't have to consider.

— STACY COLLETT

Security Manager's Journal

MATHIAS THURMAN

Firming Up Firewall Protection

Our manager's company is trying out the latest generation of firewalls, which offers some exciting possibilities.

THIS WEEK, my company began deploying new firewalls. The old ones have been in place for more than six years; the new ones will allow us to take advantage of the next generation of features.

Today, application-based (Layer 7) firewalls provide far more flexibility than was available before. The methods of inspecting traffic enable us to allow or deny traffic based on a variety of factors. In addition, the firewall we chose, which is from Palo Alto Networks, offers what has been termed unified threat management (UTM), so we can eliminate several extra appliances and management consoles. UTM-type devices are not new, and in the past I'd found that all the functionality they offered had a big impact on performance. That's still a problem to some degree, but Palo Alto's system uses several chip sets for offloading and parallel-processing some of the functionality. That seems to minimize the performance hit to a satisfactory degree.

One thing about the new firewall technology that I like a lot is that it can be integrated with Active Directory, allowing us to build application-specific firewall rules based on individual needs. For example, if our remote-access policy didn't authorize the use of pcAnywhere but someone had a legitimate business need for it, I could write a rule and enable the use of that software, even by a single employee. At the same time, I could restrict that sort of remote access based upon time of day.

Naturally, the firewall offers URL content filtering for restricting access to certain Web sites and Web-based applications. But now we can do more than just block sites that traffic in porn, crime, terrorism and gambling; we can also define the sorts of activities that are permissible on some allowed sites. As things stand now, we give our employees access to third-party chat applications such as Yahoo Messenger, Google Talk and even Skype. But the firewall lets us prevent file transfers over such systems. That gives us a new way to further protect our intellectual property by stopping the illicit dissemination of sensitive documents. And again, if someone has a business need, I can make an exception.

Join the discussions about security! computerworld.com/blogs/security

> **We will be able to build application-specific firewall rules based on individual needs.**

Trouble Ticket

» **The issue:** Firewalls have gotten a lot more sophisticated since the company's were installed six years ago.

» **Action plan:** Try out a new firewall system at some smaller sites, then embark on a companywide deployment if all goes well.

Meanwhile — and for me this just adds to the excitement — we are directing the firewall logs to our new security event management tool. I hope to combine the rules from the firewall with rules from other application and server logs, as well as NetFlow traffic from our Cisco infrastructure, to provide meaningful information related to potential incidents. For example, if the firewall blocks a Port 80 connection to a malicious command-and-control server, we can correlate that with other data to determine how the user introduced malware, the origin of the infection and how many other resources were affected.

Not All at Once

For some of our smaller offices, we will also be enabling the intrusion-prevention feature (although we won't block traffic until we're confident that the rules are properly tuned). Other cool features include real-time detection and prevention of viruses and malware, traditional VPN options, and quality-of-service rules that will allow us to prioritize various types of traffic.

The initial rollout involves a half-dozen firewalls at some of our smaller sites. If we're happy with our experience, we'll continue the deployment in stages to the remaining 40-plus Internet points of presence that the company currently supports.

I am excited about this new technology and am hopeful for its success in our environment. But just in case, we're not getting rid of the old firewalls just yet. ◆

This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

Introducing the new, cutting-edge Smart-UPS

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OPINION

THORNTON A. MAY

Boundless Praise for Some of IT's Very Best

IT doesn't celebrate its heroes enough. To rectify that, I am bestowing what I'll call the OC-DASS Awards.

INFORMATION TECHNOLOGY has always been chastised for overindulging in acronyms. At the same time, it undercelebrates heroes. I want to do a little something to recognize a few of IT's best, though I'm afraid I'm going to exacerbate the acronym surfeit in doing so.

In this column, I am bestowing what I'll call the OC-DASS Awards. To my mind, constituent parts of that acronym describe the path to IT leadership success for the next five years.

"OC" stands for org chart and represents the important question of how IT should be structured. "D" stands for dollar — as in, how do we decide where IT's next dollar will be spent? (And how do we decide that the next dollar spent should actually be spent with IT?) "A" stands for architecture — how should it evolve and be implemented? The first "S" stands for skill sets — how do they need to change? And the second "S" stands for succession planning — how is the next generation of IT leaders being groomed?

For each of these, I have a hero in mind.

The OC-DASS Awards

Some of the best thinking about the emerging shape of the organizational chart for the newly reinvigorated IT function is being done by **Don Riley**, CIO at Mohawk Industries.

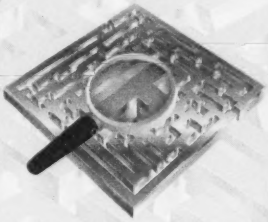
In the "next dollar" arena of IT finance, the sharpest pencil probably belongs to **Bill Miller**, associate vice president at Nationwide Mutual Insurance. Bill makes IT cost analysis come alive. My students at Ohio State University love this guy — and he talks about IT accounting! In explaining the intricacies of IT chargeback systems, Bill matches the eloquence of Homer, the insight of Plato and the realpolitik of Machiavelli.

The toughest job in IT today may well be that of the enterprise architect. The most special of this very special breed of scarily smart and underappreciated IT heroes is **Steve Davis**, the chief architect and vice president of IT at Walt Disney Studios. Steve and his team have sculpted, crafted and given life to one of the most robust, understandable and actionable IT architectures in existence. The plans emerging from Steve's office are to architecture what Mickey Mouse was to animation — iconic, timeless and much beloved. If a theme park is ever erected to commemorate the practice of IT architecture, Steve will be one of the star attractions.

Skill sets are perhaps the black eye of our profession. **Tom Murphy**, the tireless CIO at AmerisourceBergen, has managed to motivate, inspire and reskill his hard-working IT team while simultaneously undertaking one of the world's most complicated ERP system deployments. Tom is a master of affordable skills management. His leadership role at his previous job — CIO at Royal Caribbean Cruise Line — is featured in one of the most popular Harvard Business School IT case studies of all time. It describes how after 9/11, Tom humanely downsized his team in a way that forged long-term and rich relationships with the folks asked to leave. People who work for Tom are working for one of the best leaders in our profession.

The final "S" is succession planning. Few organizations have succession plans in place for key IT personnel. Even fewer do it well. Everyone could learn from **Barbra Cooper**, CIO for Toyota operations in North America. Barbra's direct reports are the best and brightest in IT today. ◆

Thornton A. May is the author of *The New Know: Innovation Powered by Analytics* and executive director of the IT Leadership Academy at Florida State College at Jacksonville. You can contact him at thorntonamay@aol.com.



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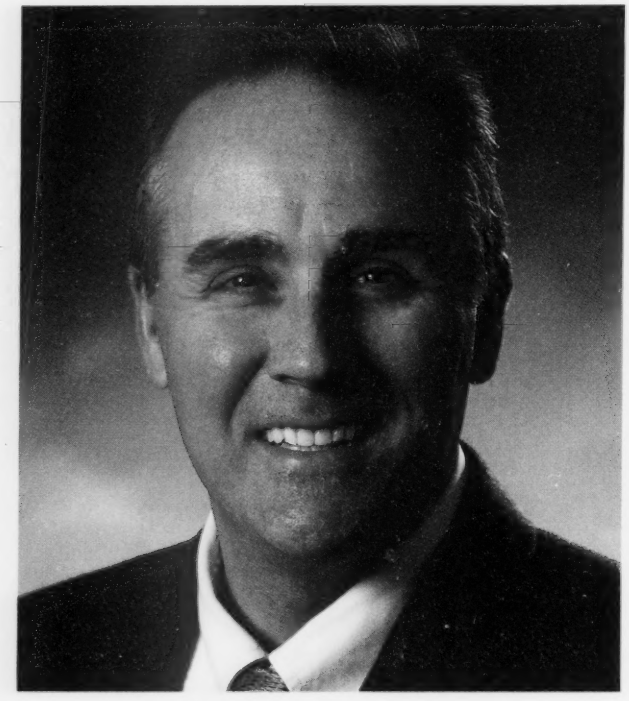
Career Watch



ASK A PREMIER 100 IT LEADER

Daniel Wakeman

The CIO of **Educational Testing Service** *answers questions about keeping up to date, lobbying for a salary increase, and more.*

What is the single best way to keep up with changes in our industry? By being involved. Participation in standards bodies, governance groups and IT networking groups and/or developing solutions are excellent ways for CIOs to stay in touch. Get an iPad or an Android device, and be involved in social media of all

Continued on next page

Corporate Cheer

As its name suggests, the online career community CareerBliss differentiates itself by emphasizing on-the-job happiness. To further its brand identity, it conducts surveys to identify superlatives like the happiest cities and the happiest job titles. In December, CareerBliss named the 50 happiest places of employment in the U.S. Here are the top 10, rated on a scale of 0 to 5:

1	Google	4.35	
2	3M	4.31	
3	DTE Energy	4.17	
4	Qualcomm	4.11	
5	U.S. military (all four branches)	4.07	
6	LSI	4.04	
7 (TIE)	Charles Schwab	4.03	
	Pricewaterhouse-Coopers	4.03	
9	TRW	4.01	
10	Johnson & Johnson	3.96	

SOURCE: CAREERBLISS SURVEY, BASED ON 91,000 REVIEWS ON ITS WEB SITE BY EMPLOYEES

In-Demand Jobs

Robert Half International has picked the 11 most promising jobs for 2011. The positions that made the staffing firm's list have seen increases in starting salaries and enjoy increased demand among employers. Of those 11, these six are IT-related:

[No. 1] Senior business systems analysts. These professionals are expected to see the largest increase in starting salaries. Average base compensation is projected to rise 5% to the range of $66,500 to $85,500.

[No. 4] ERP technical developers. A projected uptick of 5.2% should bring salaries for these jobs to between $79,250 and $109,500 this year. As Robert Half notes, "Since no two companies are alike, developers are in steady demand to customize software according to specific organizational needs."

[No. 5] Business intelligence analysts. With a likely increase of 5%, starting salaries should hit $82,500 to $116,250.

[No. 6] Data modelers. Base pay for these professionals should reach $80,750 to $111,250, up 4.5% year over year.

[No. 7] Mobile applications designers/developers. Starting salaries of $73,250 to $102,500 are expected.

[No. 8] User experience designers. These professionals should see their compensation increase 7.8% to a range of $67,500 to $98,000.

ILLUSTRATION BY RUSSELL TATE / ISTOCKPHOTO

Continued from previous page

types. Set up news feeds from thought leaders such as *Computerworld* and others. Another option I have used is study tours, where we visit leading technology companies such as Microsoft, Google, Apple and Cisco.

Several years ago, my company hired me at a salary that's lower than the average for similar jobs in this area. At the time, the economy was starting to sink, and I knew I was lucky to be getting a job anywhere, so I don't blame my employer — I just couldn't say no at the time. I really enjoy working for my company, but I see other IT jobs opening up in the area with the same hours and benefits but better pay. I don't want to leave my company, but money talks. If it were just a few thousand dollars, I wouldn't even think about it, because I pretty much enjoy everything else about my job. But the difference is about $12,000. I know I can't just go and ask for a bump like that, because my company has caps on raises. I'm torn on how to even bring up the subject with my boss without sounding greedy or unappreciative. I know my company respects and appreciates what I do, and I don't want to flag myself as "that guy who wants more money." Any suggestions would be very helpful. In situations like this, it's best to seek a market adjustment rather than a raise. Nearly all companies have a process for adjusting pay based on the market, so find out who in your company manages this process. If you and others leave for similar positions at nearby companies, your employer will soon realize that it isn't offering competitive salaries. Help the company recognize that it could be facing a challenge. Be honest, and express your desire to stay. If no market adjustments are forthcoming, you unfortunately may have to leave. Be sure you're ready to follow through on that so you don't lose credibility.

If you have a question for one of our Premier 100 IT Leaders, send it to **askaleader@computerworld.com**, and watch for this column each month.

If you were asked today to cut 20% of your staff, what IT skills or qualities would you most want to retain? Architecture (both technical and application), security, business analysis, business relations, senior development, and key database administration expertise.

I worked in tech support at a newspaper for eight years until I was laid off in a mass downsizing last April. I feel I should get out of the newspaper business, but I have a ton of know-how in things like Web publishing and desktop publishing. Any ideas on leveraging this knowledge in another vertical? Online content is growing rapidly, and much of it is in need of a professional touch. Many businesses now realize that social media is here to stay and that it's having a significant influence on sales and on the public's perception of companies. Your background is relevant here, and it might be just what many savvy companies are looking for. Start your own blog and show what you can do. Be involved as an expert in this area. Get noticed.

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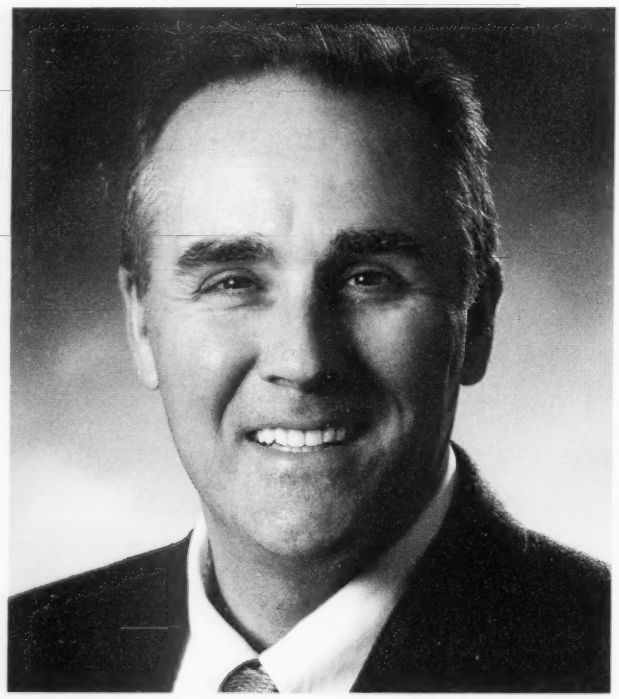

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3	DTE Energy	4.17		Pricewaterhouse-Coopers	4.03
4	Qualcomm	4.11	9	TRW	4.01
5	U.S. military (all four branches)	4.07	10	Johnson & Johnson	3.96

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[No. 6] Data modelers. Base pay for these professionals should reach $80,750 to $111,250, up 4.5% year over year.

[No. 7] Mobile applications designers/developers. Starting salaries of $73,250 to $102,500 are expected.

[No. 8] User experience designers. These professionals should see their compensation increase 7.8% to a range of $67,500 to $98,000.

ILLUSTRATION BY RUSSELL TATE / ISTOCKPHOTO

Continued from previous page

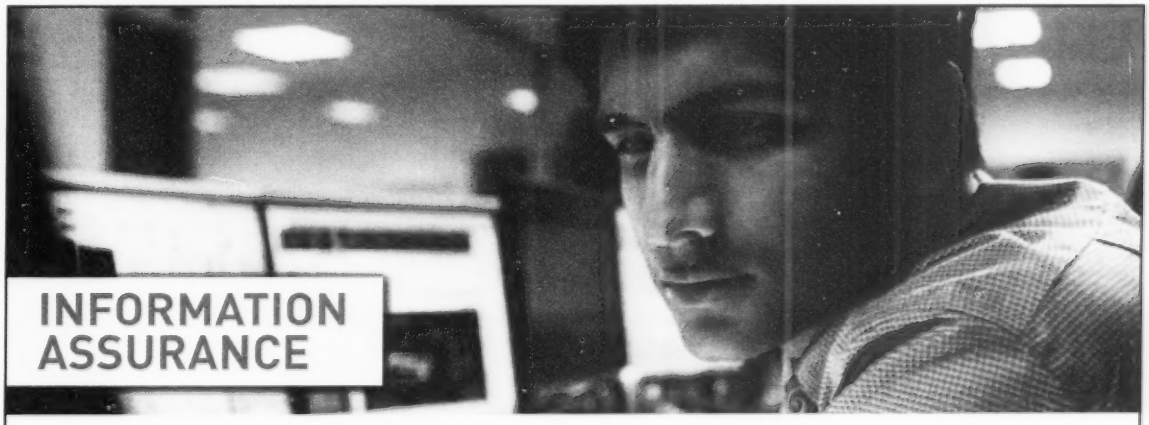
types. Set up news feeds from thought leaders such as *Computerworld* and others. Another option I have used is study tours, where we visit leading technology companies such as Microsoft, Google, Apple and Cisco.

Several years ago, my company hired me at a salary that's lower than the average for similar jobs in this area. At the time, the economy was starting to sink, and I knew I was lucky to be getting a job anywhere, so I don't blame my employer — I just couldn't say no at the time. I really enjoy working for my company, but I see other IT jobs opening up in the area with the same hours and benefits but better pay. I don't want to leave my company, but money talks. If it were just a few thousand dollars, I wouldn't even think about it, because I pretty much enjoy everything else about my job. But the difference is about $12,000. I know I can't just go and ask for a bump like that, because my company has caps on raises. I'm torn on how to even bring up the subject with my boss without sounding greedy or unappreciative. I know my company respects and appreciates what I do, and I don't want to flag myself as "that guy who wants more money." Any suggestions would be very helpful. In situations like this, it's best to seek a market adjustment rather than a raise. Nearly all companies have a process for adjusting pay based on the market, so find out who in your company manages this process. If you and others leave for similar positions at nearby companies, your employer will soon realize that it isn't offering competitive salaries. Help the company recognize that it could be facing a challenge. Be honest, and express your desire to stay. If no market adjustments are forthcoming, you unfortunately may have to leave. Be sure you're ready to follow through on that so you don't lose credibility.

If you have a question for one of our Premier 100 IT Leaders, send it to **askaleader@computerworld.com**, and watch for this column each month.

If you were asked today to cut 20% of your staff, what IT skills or qualities would you most want to retain? Architecture (both technical and application), security, business analysis, business relations, senior development, and key database administration expertise.

I worked in tech support at a newspaper for eight years until I was laid off in a mass downsizing last April. I feel I should get out of the newspaper business, but I have a ton of know-how in things like Web publishing and desktop publishing. Any ideas on leveraging this knowledge in another vertical? Online content is growing rapidly, and much of it is in need of a professional touch. Many businesses now realize that social media is here to stay and that it's having a significant influence on sales and on the public's perception of companies. Your background is relevant here, and it might be just what many savvy companies are looking for. Start your own blog and show what you can do. Be involved as an expert in this area. Get noticed.



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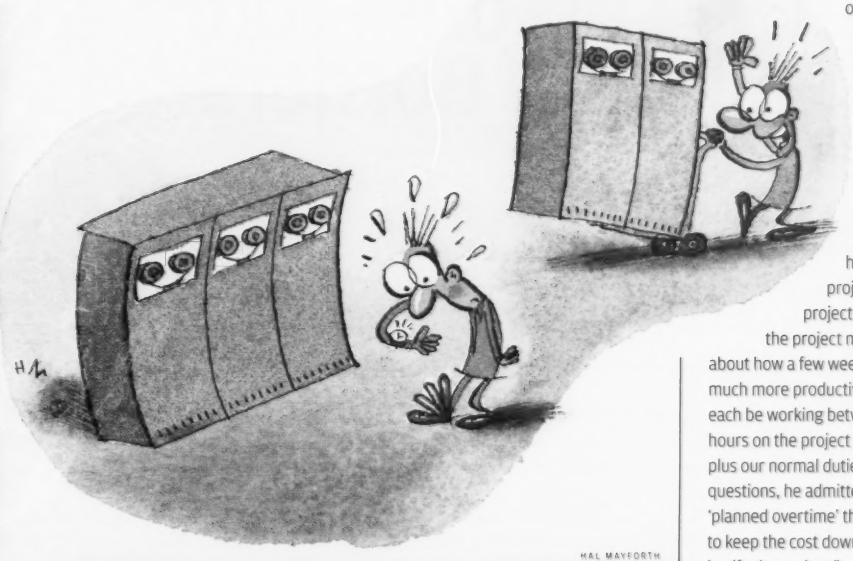

HAL MAYFORTH

Mathemanagement

Flash back to the 1970s, when this pilot fish is working as a third-shift operator at a local bank. "We had a Burroughs mainframe with three tape drives," says fish. "The tape drives were used for all processing and nightly backups and got extensive, constant use. They were old, even for that time, and very slow. This caused a lot of hurry-up-and-wait processing, and we started to suggest to management that getting faster tape drives could significantly improve operations. After half a year of us documenting and 'proving' that the faster tape drives would be better for the bottom line, they finally relented. We were told the date, time and method of getting the new tape drives. The day finally came. I walked into the data center that night, and there they were – both of them. *Two* tape drives. The bosses decided, in all their wisdom, that because the tape drives were one-third faster than the old ones, we only needed two instead of three, since they would process the same amount of data!"

Where Does The Time Go?

This big company requires its IT people to fill out a time sheet to indicate what project each is working on, divided up in increments of one-tenth of an hour. "But we were not allowed to indicate any overtime or any hours worked outside the normal Monday-through-Friday workweek," says a pilot fish there. "Since we were all salaried-exempt, there was no extra cost for our off-hours work, and therefore the projects should not be billed for that time. So, many of the project managers scheduled our work for 'off hours' to reduce project costs. In one project kickoff meeting, the project manager talked about how a few weeks had to be much more productive – we would each be working between 45 and 50 hours on the project for those weeks, plus our normal duties. After some questions, he admitted that it was 'planned overtime' that we had to do to keep the cost down, or he couldn't justify the project."

The Metrics System

IT director pilot fish works for a nonprofit, and along with data, his department also processes donations. "One year, the organization decided to tie all performance reviews for managers to metrics," says fish. "For gift processing, my boss suggested that we should have a metric to increase the number of gifts my staff entered by 5% over what we did the previous year, with a stretch goal of 10% higher. I had to explain to her that we only enter 100% of the gifts that come in, not one more and not one less. It took several attempts to get her to understand why."

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OPINION

FRANK HAYES

Seven IT Lessons From The Failure of Borders

We've all heard – endlessly – why Borders went bankrupt. But those things are just technology. What are the IT lessons?

IS THERE ANYTHING LEFT for IT people to learn from the collapse of Borders? Sadly, yes. Sure, we've all heard — endlessly — that Borders went bankrupt because it farmed out its Web store to Amazon.com in 2001, failed to develop its own Kindle knockoff and was late to jump into e-books. But that's just technology. What are the IT lessons?

Lesson 1: Lose your IT-savvy management, lose your way. Tom and Louis Borders didn't just start a bookstore in 1971. They also developed a sophisticated inventory management system that used a mainframe punch card in each book to track and adjust inventory on a near-real-time basis. That system, called Expert, was the main reason Kmart bought Borders in 1992 — Kmart wanted to use Expert to manage its huge Waldenbooks chain. But almost as soon as the sale closed, the brothers Borders cashed out and left. Borders never had truly IT-savvy management again.

Lesson 2: Sometimes even the best technology doesn't scale. In 1992, the Borders Expert System worked really well for 22 Borders stores. It never really did the job for 1,100 Waldenbooks stores — and as Borders grew, Expert couldn't scale for it, either. Still, for a decade, no one in IT was able to convince management to reinvent Expert.

Lesson 3: The best isn't good enough. Did you know that Borders.com overtook Amazon.com in 2000 as the best online bookseller? That's how Forrester scored it. But in the midst of the dot-com collapse, Borders.com stopped getting better. The site got sluggish and unreliable. And Amazon kept improving.

Lesson 4: Steal from the best – and keep stealing. Borders.com didn't crib good Web ideas from Amazon the way Barnes & Noble did. It should have. Sure, Amazon sued Barnes & Noble over 1-Click ordering, which was patented. A lot of other good Amazon ideas weren't. Borders missed its chance to, um, emulate them.

Lesson 5: Sometimes even Gartner is wrong. You know who loved that catastrophic, what-were-they-thinking 2001 Amazon-Borders deal? Gartner, which called it "a step in the right direction for both companies" and said, "Almost immediately, Borders can improve its online presence [and] Amazon.com has an opportunity to get its feet planted in the physical world."

Well, no. Borders effectively lost its online presence, and Amazon wasn't interested in a brick-and-mortar foothold. Relying on the prescience of analysts can be disastrous.

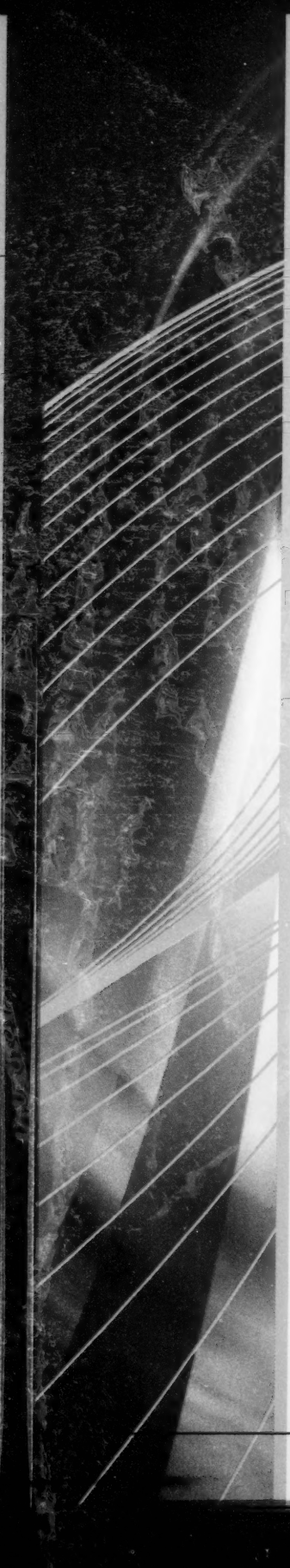
Lesson 6: Failure begets failure. After the Amazon deal, Borders tried to replace Expert — not once but twice. Both projects failed, and the second one reportedly hurt Waldenbooks badly. Instead of new thinking, IT offered the same-old same-old.

Lesson 7: Off-the-shelf can't give you a competitive advantage. What about e-books? Amazon created the Kindle. Barnes & Noble cooked up the Nook. Borders? It sold e-book readers from Sony *and* Kobo *and* Velocity. Without one e-reader to call its own, Borders couldn't tightly integrate e-books with its Web site and brick-and-mortar stores.

Sure, you can save a little money by using exactly the same technology that anyone can buy. But you only get a real business advantage from IT when you're different.

And if you think a little money is better than a real business advantage, consider this: Right now, "a little money" is all Borders has left. ◆

Frank Hayes has been covering the intersection of business and IT for three decades. Contact him at cw@frankhayes.com.



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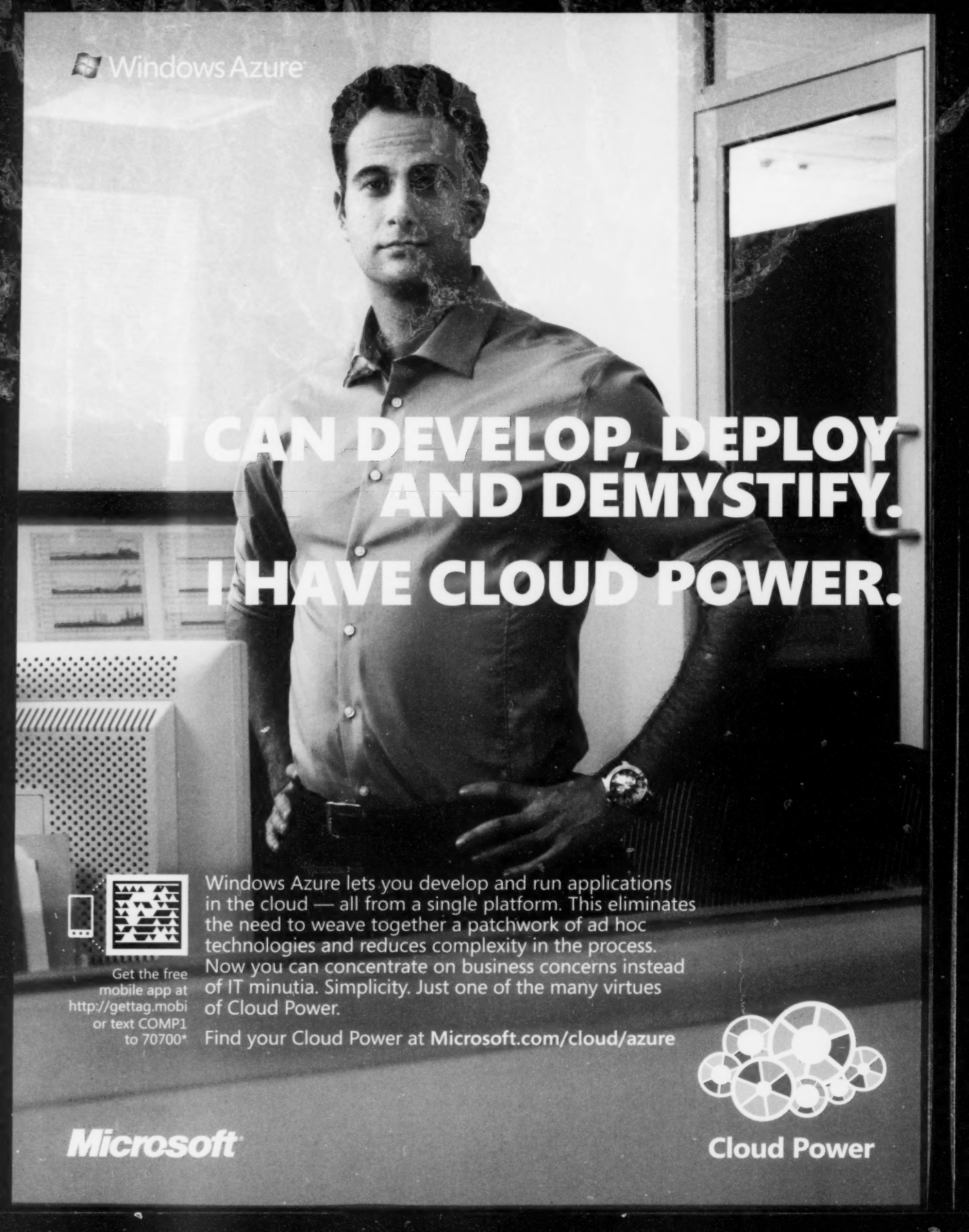
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